MISSOURI BOTANICAL GARDEN

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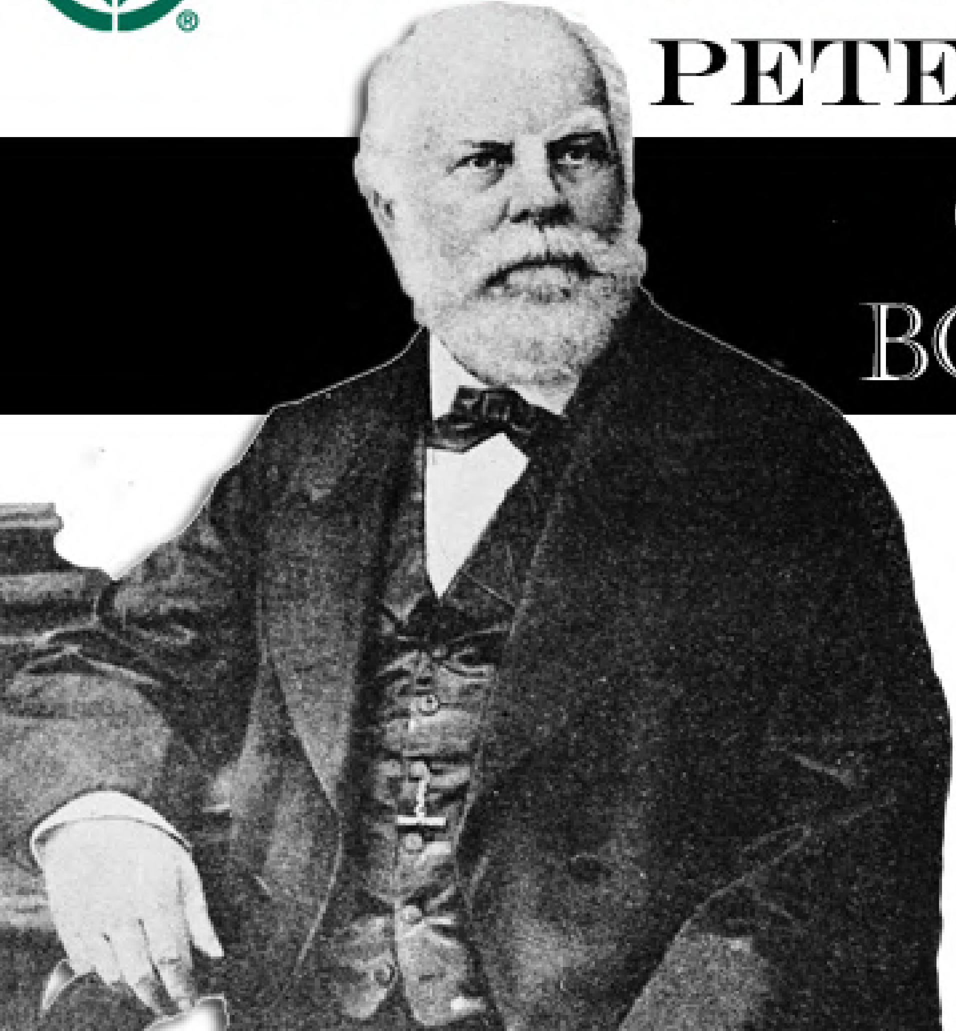
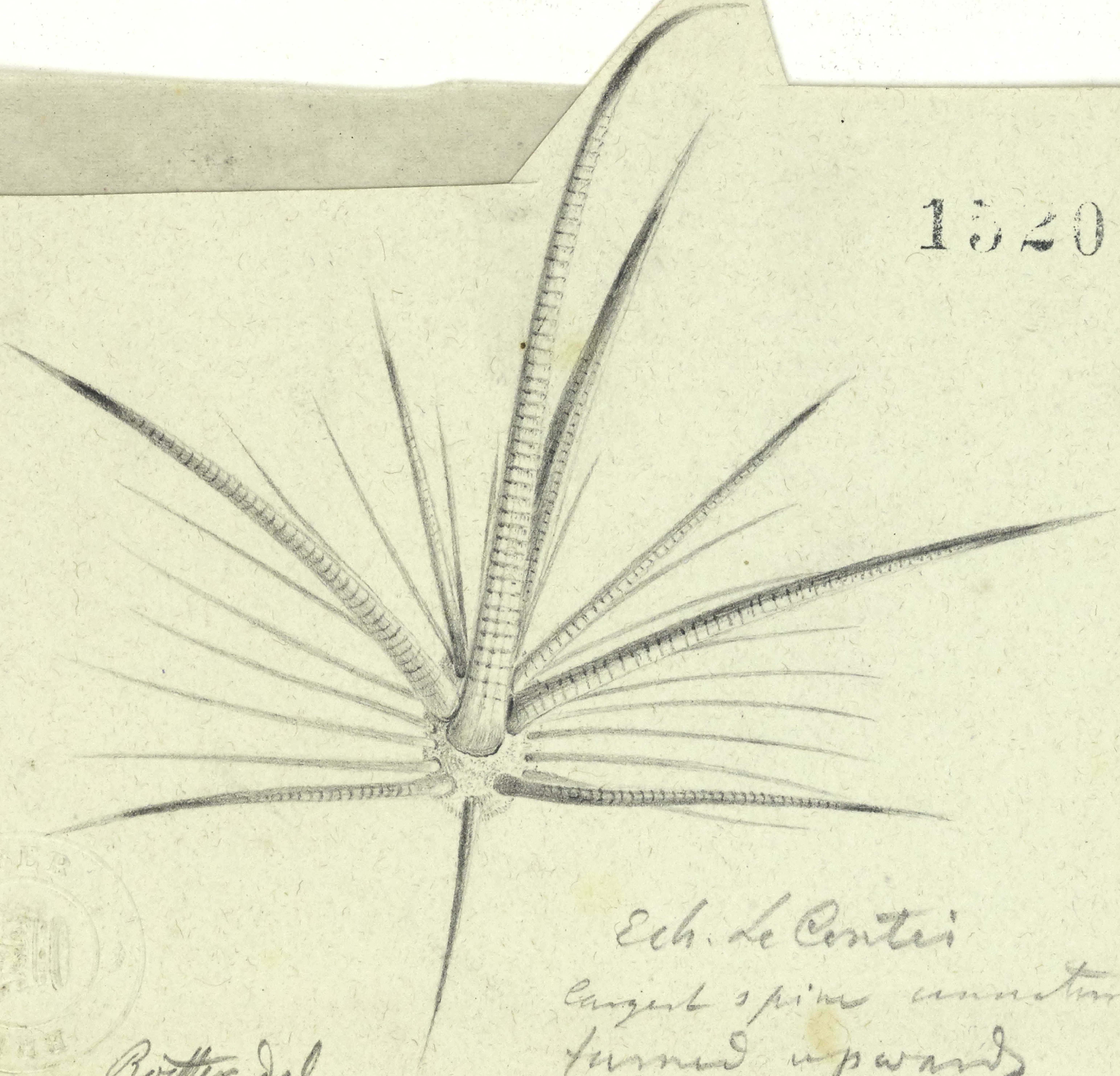


GEORGE ENGELMANN BOTANICAL NOTEBOOKS

Pagination Note:
Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

1520



Ech. Le Contei
Largest spine unnaturally
turned upwards

Rotter del.

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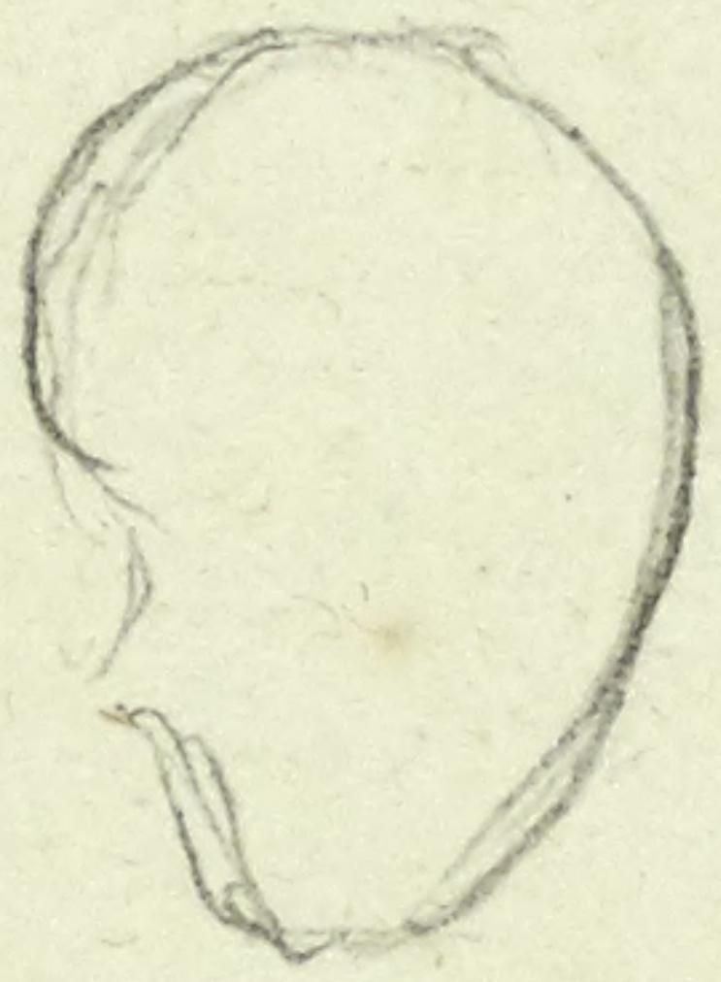
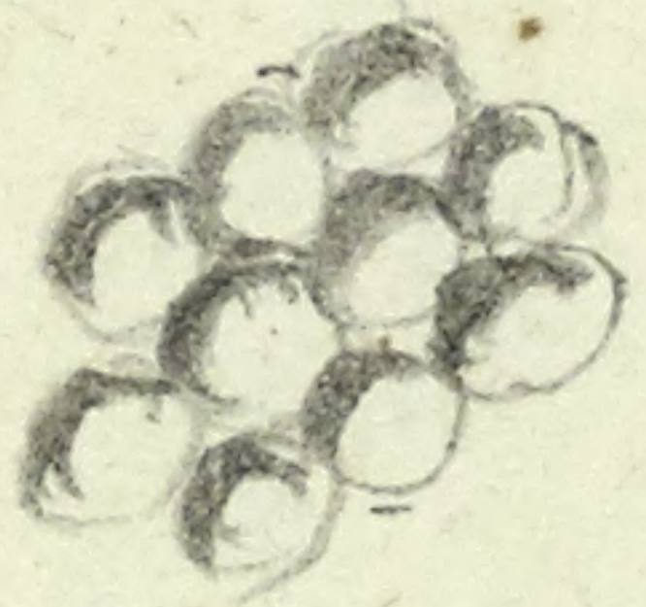
E. LeContei

Febr 23 1876

x 8

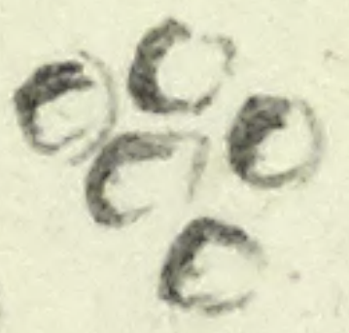




pits of seed
x 60

too near E. viridescens

original Echinocactus
Lecontei

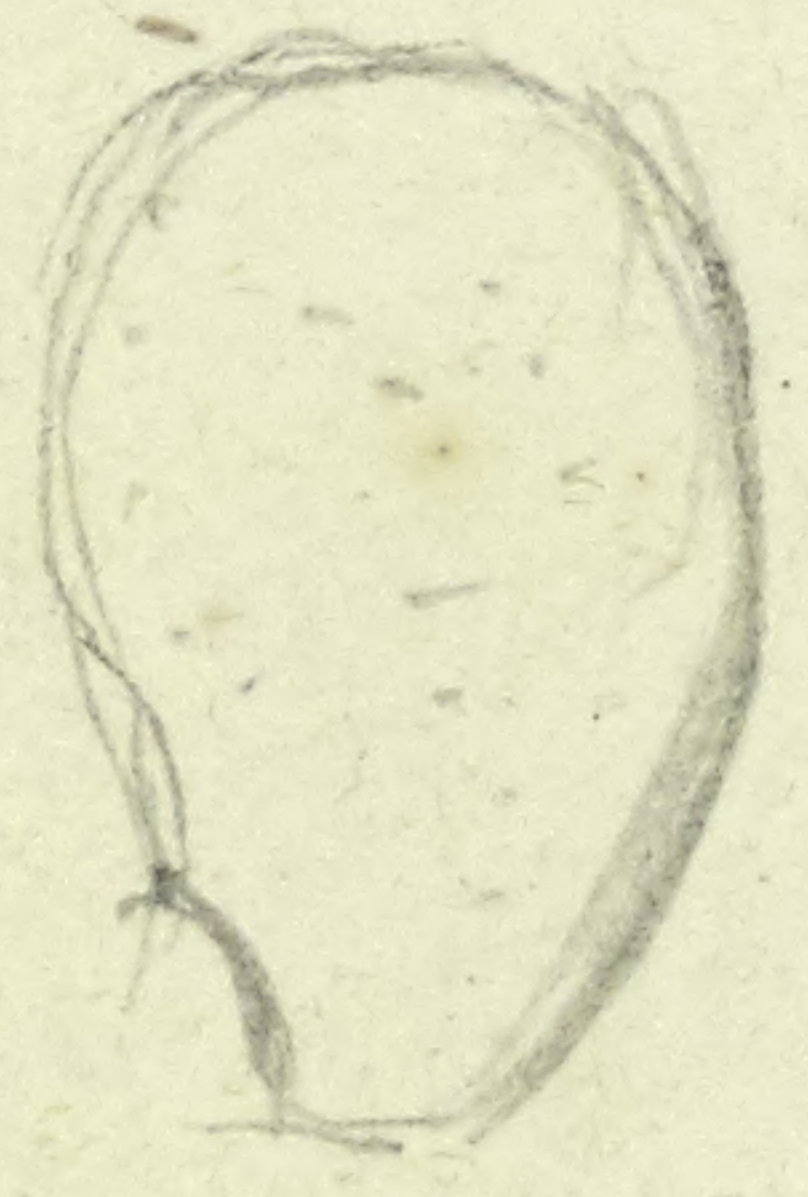


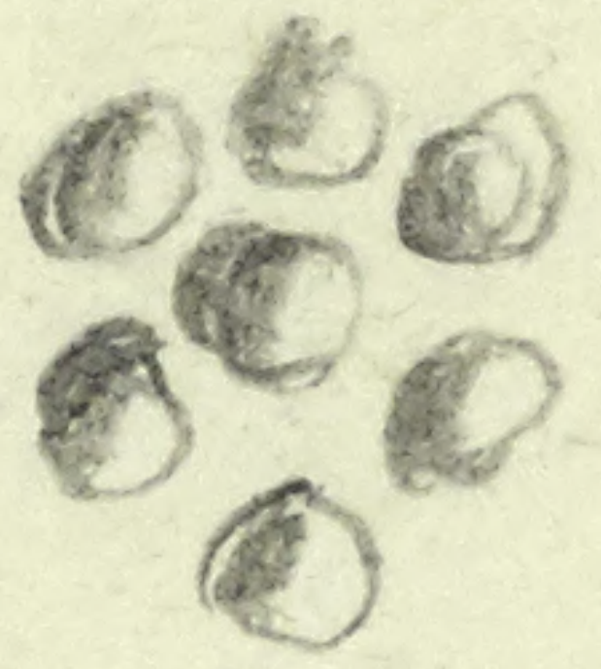
pits of
rim x 60

LeConte leg.

1521

Dr Bigelow 1854





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MISSOURI
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Alex. Leitch,
APOTHECARY & CHEMIST,
Cor. 4th. & Olive Sts., St. Louis.

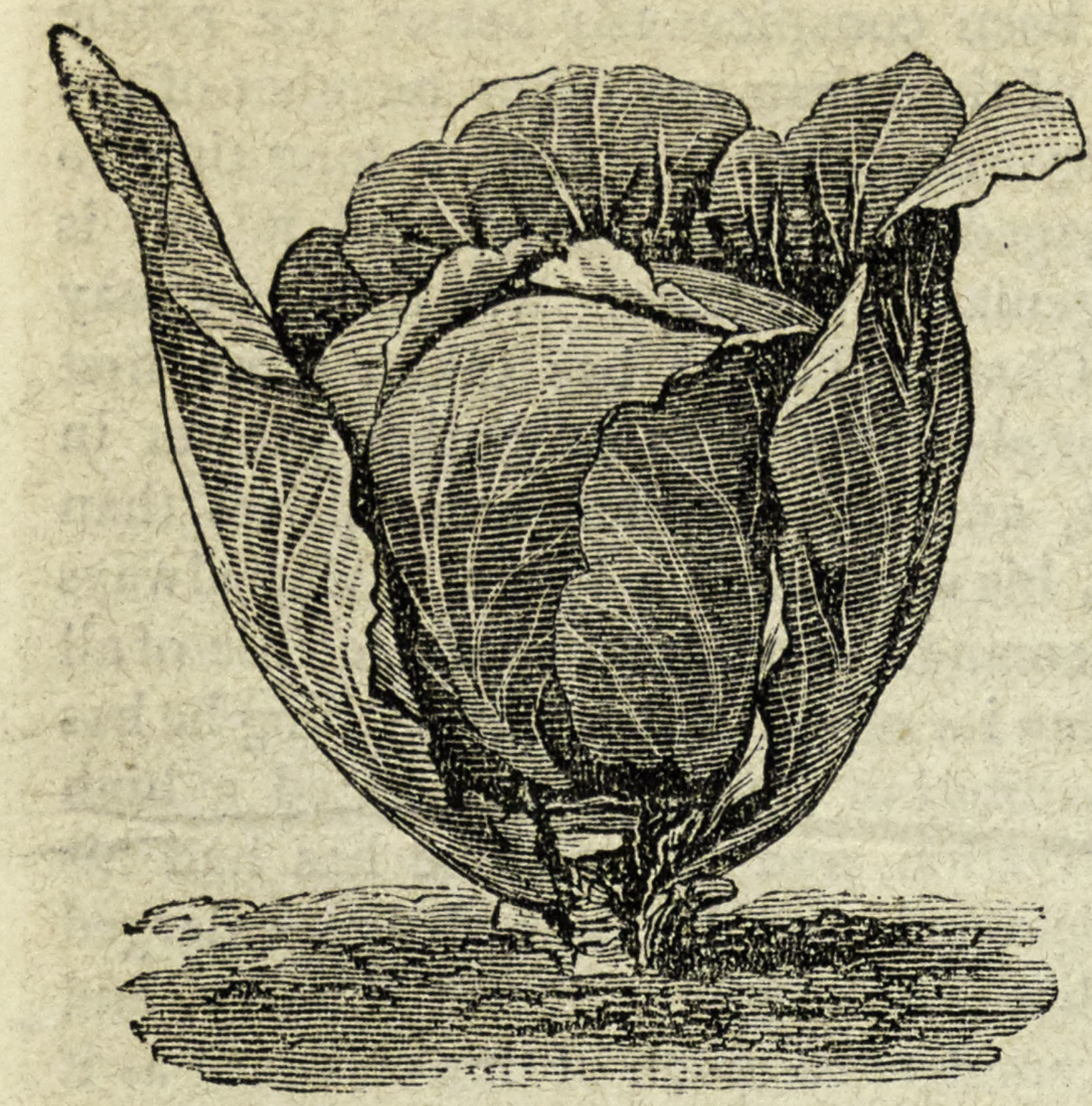
15217A

Le Contei × Wislizeni

= acanthodes Lem ?

CABBAGE

FOR PRESENT SOWING



SUTTONS' IMPERIAL.

The best Cabbage for spring use. If sown the first or second week in Angust it will produce beautiful Cabbages for early spring use. Heads cone-shaped, very large, firm, and of mild flavour.

1s. per ounce.

ENFIELD MARKET, *6d.* per ounce.
SUTTONS' IMPROVED NONPAREIL, *9d.* per ounce.
IMPROVED EARLY DWARF YORK, *8d.* per ounce.
LARGE BLOOD-RED, *9d.* per ounce.

Vegetable Seeds Post-free (except Peas and Beans); all goods value 20*s.* Carriage Free to any Railway Station in England or Wales.

SUTTON & SONS,
THE QUEEN'S SEEDSMEN, READING.

SEEDS,
VEGETABLE, FLOWER
AND
FARM,
The BEST procurable,
at the Lowest Prices consistent with
GENUINENESS.

ILLUSTRATED DESCRIPTIVE LIST on application.

RICHARD SMITH & CO.,
WORCESTER.

DUTCH BULBS.

ANT. ROOZEN & SON,
Nurserymen, Overveen, near Haarlem, Holland,
Have pleasure in informing their numerous friends that their Crop of Bulbs is unusually fine this year, and they respectfully request that all Orders be sent them as early as possible. Their full and Descriptive CATALOGUE for 1883 will be sent, post-free, on application to their Agents,
Messrs. MERTENS AND CO., 5, Billiter Square, London, E.C.

AMERICAN SEEDS.

2½*d.* Postage on a Letter of Inquiry will secure you by return Mail our PRICES—Wholesale or Retail.

SEEDS of MAIZE for Field or Garden, PEAS, BEANS, CUCUMBERS, PUMPKINS, SQUASH, CANTALOUPES, WATER MELONS, TOMATOS, OKRA or GUMBO, COTTON SEED, TOBACCO, OSAGE ORANGE or MACLURA, TREE SEEDS, AMERICAN GARDEN TOOLS, BOOKS, &c.

All offered by the *oldest and ever the most extensive* Seed Farmers in America.

Founded in 1784.

ADDRESS:—
LANDRETH & SONS,
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ROSES IN POTS,

All the best New and Old English and Foreign sorts, from 18*s.* to 36*s.* per dozen.

These World-famed ROSES cannot fail to give the greatest satisfaction.

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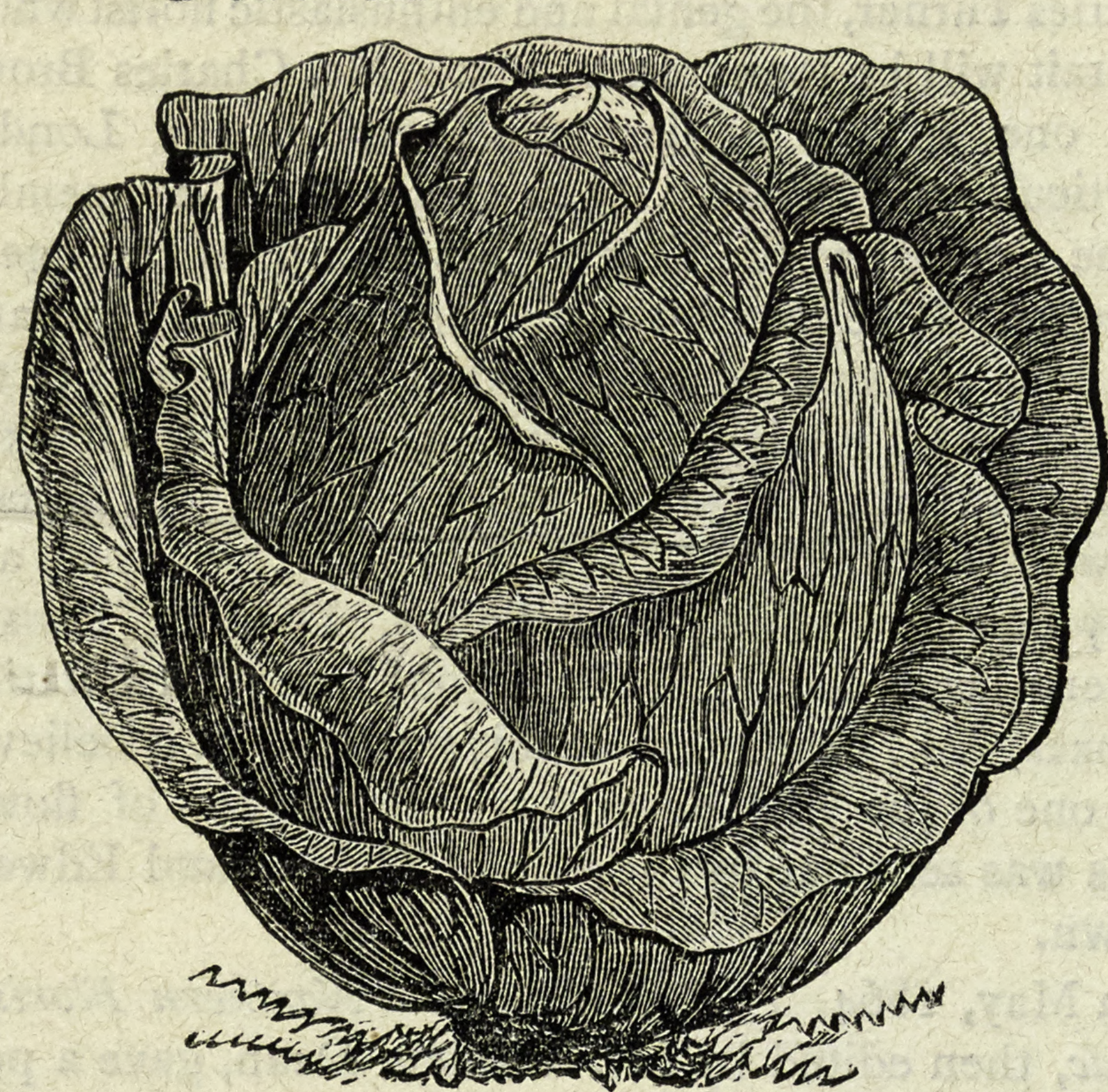
CABBAGE.



The Best Cabbage in Cultivation.
6d. and 1s. per Packet, 2s. per Ounce.

Mr. J. Muir, in the "Journal of Horticulture," of May 24, 1883, says:—
"Our largest piece of Spring Cabbage measures 70 feet × 50 feet, and here we have many sorts growing. The best of all these at the present time is WEBBS' EMPEROR."

		Per Ounce, Post-free.
EARLY NONPAREIL CABBAGE	..	**8d.**
ENFIELD MARKET	**do.** ..	**8d.**
EARLY RAINHAM	**do.** ..	**9d.**
EARLY DWARF YORK	**do.** ..	**6d.**
RED DUTCH	**do. 6d.** pkt.	**1s.**

ONION.

	Packet.	Ounce.
WEBBS' NEW RED GLOBE TRIPOLI,	**6d.**	**1s.**
WEBBS' WHITE ITALIAN TRIPOLI,	**6d.**	**9d.**
LARGE FLAT RED TRIPOLI ..	**6d.**	**9d.**
GIANT ROCCA	**6d.**	**1s.**
WHITE LISBON		**6d.**
WHITE SPANISH, or READING		**6d.**

All Garden Seeds Free by Post or Rail.
5 PER CENT. DISCOUNT FOR CASH.

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THE QUEEN'S SEEDSMEN,
WORDSLEY, STOURBRIDGE.

BULB SEASON, 1883.

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Write for PRICE LIST to THE CITY FLOWER, SEED, and BULB DEPOT, 162, Fenchurch Street, and 80, St. Paul's Churchyard, London, E.C.

HYACINTHS. — HYACINTHS. — In harvesting our Hyacinths some time ago we were astonished to see the bulbs looking so grand and healthy this season. We really do not think we have had such a fine crop the last four years. Therefore we recommend our Customers to order at once to secure the very best stuff. Special offers for large quantities.
SEGERS AND CO., Bulb Growers, Lisse, near Haarlem, Holland.

DANIELS'
WHITE ELEPHANT TRIPOLI.

The largest White Onion known. Grows 2 ft. in circumference.
Seed, with complete Cultural Directions,
1*s.* 6*d.* per packet, post-free.

Daniels Bros. (Seed Growers and Importers), Norwich.

FERNS A SPECIALITY.

EXOTIC and BRITISH FERNS and SELAGINELLAS,

Suitable for STOVE and GREENHOUSE Cultivation, for OUTDOOR FERNERIES, and other purposes, in immense number and variety. Our ILLUSTRATED CATALOGUE

428-440

THE
Gardeners' Chronicle.

SATURDAY, AUGUST 4, 1883.

THE FRUIT CROP OF 1883.

THE returns from all parts of the United Kingdom sent us by trustworthy reporters, to whom we are greatly indebted, enable our readers, as it has enabled us, to get a bird's-eye view of the general condition of fruit production for the present year. One of the most remarkable features of these returns is found in their singular unanimity with respect to various fruits, for north and south, east and west alike, have to deplore on the one hand the almost total failure of some, and the same fruits, whilst they equally have to rejoice over the abundance of others. If we regard the intrinsic value of the various kinds, however, to a great fruit-consuming people, we shall find that the large crops of certain fruits far more than counterbalance those which have failed—as for instance, if Apricots are few, Peaches seem to be fairly abundant; and while Plums and Pears are scarce, the enormous crops of Apples—*par excellence*, the fruit of the nation—and of bush fruits, and wholesome Strawberries, far more than outweigh the former's shortcomings. Indeed, were all other fruits as thin as some are, yet would the splendid Apple crop, the very best without doubt, because so universally good, that we have had for ten years or more, suffice to mark 1883 as a red-letter year in the diaries o fruit growers.

We have remarked upon the unanimity shown in the fruit returns, and our readers have but to note those sent us either from the chilly land beyond the Tweed, or the drippy Emerald Isle, to find how closely they tally with reports sent in even from our southern and midland districts where the climatic conditions are so much more favourable to fruit production.

Whilst it will be generally admitted that the previous autumn seems to have been favourable to the ripening and maturation of fruit producing wood, the very indifferent results that have followed upon the fine bloom which garlanded Pears, Plums, and sweet Cherries, must be attributed to purely climatic causes, that if not perennial are at least far too common; whilst to the absence of these adverse conditions later in the spring do we owe that magnificent crop of Apples we now rejoice in. It seems idle to speculate on what might have been, but there can be little doubt that had the early spring been favourable throughout we should now have to be commenting upon and lauding one of the finest fruit crops seen within the memory of man. However, we have this consolation, that just as "he that fights and runs away may live to fight another day," so shall our now too barren Plum, Pear, and other fruit trees live to bear us good crops perhaps next year, when Apples at least can hardly be as good as they now are.

Summing up in a few words the general confavoured gardens there are fair crops, but generally the crop is poor, and may be classed as very moderate.

Plums universally are thin, the best results being seen on walls; but on orchard trees the produce is a very poor one, even Damsons being a failure.

Cherries of all sweet kinds are few indeed, and apparently better in Scotland than elsewhere; but the returns probably chiefly apply to Morellos, which are fairly good, as usual.

Apricots are a universal failure, and need no farther comment.

Peaches and Nectarines are very fair generally, that is to say, in some places a heavy crop and in others thin. Of course, in Scotland and Ireland these are not largely grown on open walls; but in England and Wales all localities give good and indifferent returns alike, but the fairly good ones predominate.

Bush Fruits and Strawberries seem to have been as universally abundant as Apples are, the season seeming specially to have favoured them. Finally,

Nuts of the smaller kinds are a very poor crop indeed, but in many localities Walnuts are fairly abundant.

It is not possible to take leave of what is not an altogether unclouded *resumé* of the fruit crops without commenting upon the great social and economical value a good fruit crop is to the kingdom. By it myriads live; by it the wealth of the country is increased, and vast sums of money are liberated for employment in other profitable channels. By it also the comforts and pleasures of the people are vastly increased, and may we not hope the health also. From afar come sad accounts of choleraic visitations, but these are the products of dirt and of foulness, not of the consumption of ripe, wholesome fruits. We trust no foolish alarms will interpose to prevent our growers from reaping to the full the benefits to which they are entitled from the plentiful Apple crop. Better a thousand times to purchase good fruit than poisonous liquid compounds and cheap questionable solids, the constituents of which none can tell. If we will take of the good things of God, surely none better merit such an epithet than a luxuriant crop of delicious wholesome fruits.

CHARLES TURNER.

When the Royal Nursery, Slough, was founded is involved in some obscurity, and owing to an unfortunate fire, which destroyed the dwelling-house and offices with their contents, much historical information was thereby lost. The name of Brown was associated with the proprietorship of the nursery for many years. In a letter received from Mr. Edward Brown, the sole surviving partner of the old firm, bearing date May, 1872, he states, "The cultivation of fancy or named Tulips commenced during the partnership of Elizabeth and Charles Brown, the former being my mother, and the latter a cousin or trustee under my father's will." Mr. Brown is unable to give the exact date, but it is believed to have been somewhere about 1820 to 1825. "I am unable to give you an account of the foundation of the nursery, but as my father was born here, and if living would have been 95 years of age (in 1872), and as he was not the eldest child, I think I may presume that it cannot be much less than a century since my grandfather commenced a nursery, on I daresay a very small scale. At that time he held land at the west end of Slough, and at Upton (Slough being comprehended in the parish of Upton-cum-Chalvey), and also about the centre of the town; and it is upwards of 60 years since the present nursery came into the possession of my family. I think I may state broadly, that the originator, Mr. Thos. Brown, commenced about 1774, and was

and Edward Brown; and on the death of Charles, in the year 1836, Thomas, my brother, and myself, became the sole partners, and traded as T. & E. Brown. On the retirement of myself, in 1837, my brother Thomas carried on the business until 1840." Mr. W. Cutter was the proprietor of the nursery for about four years, when it passed into the hands of Mr. Charles Turner, the genial and enthusiastic florist whose portrait will be found on p. 145. Mr. Charles Brown was one of the earliest members of the London Horticultural Society, and was also a member of the Council at the time of his death, at the age of 41 years. The firm for a number of years regularly and most successfully exhibited at the meetings of the Horticultural Society of London, as well as at exhibitions in the large provincial towns. Lonicera Brownii, Lilium Brownii, Brown's Superb Rose, and many fine new varieties of Tulips, Dahlias, Pansies in very large numbers, Pelargoniums, Calceolarias, Phloxes, &c., originated at this nursery. It is believed that one of the first descriptive catalogues of flower seeds was sent out by the firm of Thomas and Edward Brown.

In May, 1864, *The Midland and Northern Florists' Guide*, then edited by Mr. William Dean, gave a portrait of Mr. Turner, accompanied by a racy and genial sketch from the pen of the Rev. Canon Hole. It set forth that Mr. Turner "was born at Wilton, near Salisbury, just at that season which we florists love so dearly—when all things are bursting into life and loveliness, blossom and bloom—on May 3, 1818. This date will surprise many, for he looks fully ten years younger than he is; but so it is, that garden life is the youngest, freshest life of all, and the heart which loves flowers, rightly and reverently, enjoys a perpetual spring."

"He was a mere boy (but, in vivid illustration of Wordsworth's words, 'The boy was father to the man') when he began his floral career. At that time the 'pink of fashion' was the Pink itself, and there were exhibitions almost entirely restricted to the display of that dainty flower. In 1832 he won his first prize. One fancies how some of the older competitors would grin derisively at the stripling, *æt. su.* 14, as he entered the show-room with his box, but it was Goliath despising David; and I should like to have seen Master Charley's face as he went home to tell the news that day, the proudest and happiest boy in England."

"This early success confirmed for ever his floral bias, united him to his first love in bonds never to be broken, and finally decided his vocation in life. From that day of victory he was never happy out of the garden. The jockey had won his first race, and the world was a dreary wilderness when viewed from the saddle. His parents kindly conformed to his wishes, and in 1834, when his enthusiasm had mounted to 'fever-heat,' on his again winning the 1st prize for Pinks, and also the 2d for Dahlias, he was apprenticed to a nurseryman at Salisbury. Here his previous talent grew and throve as rapidly, but withal as robustly, as one of his show Pelargoniums. His master was an invalid, and many things were entrusted to his supervision which are usually cared for by the owner himself, and which, perhaps, no other youth in existence would have successfully undertaken as he did. In 1835 he went to Bath with Dahlias, and brought home a £12 and an £8 cup."

"He went from Salisbury to the nurseries of Messrs. Cormack, New Cross, Surrey, and thence to the Messrs. Brown, of Slough, whom he ultimately succeeded; wherever he went victory went with him, and as he gradually extended his ambitions, so has honour always rewarded enterprise. He has tried no branch of floriculture without improving it, *nihil tetigit quod non ornavit*: he has aspired to no prizes which he has not obtained. In 1840 he won a £20 cup at Cambridge, and a £25 cup at Norwich; and in 1841 three £20 cups in one week—namely, at Tamworth, Warwick, and Halstead—for Dahlias, which were then the favourite flowers for exhibition. From 1832 to 1848 the number of prizes awarded to him was 498, and since that date no account has been kept."

The outline so pleasantly sketched by the Rev. Canon Hole may be filled up in a small particular or two by stating that Mr. Turner was foreman to Messrs.

of Mr. Cutter that Her Majesty the Queen paid a visit to the nursery, hence the prefix, Royal.

If the subject of this sketch is not the oldest living florist, he has been conspicuously before the public longer in point of time than any other member of the fraternity. Fifty-one years is indeed a long time to be actively engaged in any profession, but labour is pleasant if congenial to the taste. We think we may safely say that Charles Turner has taken more first prizes for his productions than any other grower in his or any time, and has awarded more prizes than any man living, his services as a judge having always been in great demand. The great characteristic of all his work has been its superb finish; everything he has placed on the exhibition stage has illustrated a high standard of cultivation, and many a one has had his perceptions quickened and his knowledge enlarged by a sight of what is done at the Royal Nursery, and has resolved to emulate so much of this standard as it was possible he could reach to. In the case of cut flowers, after winning all along the line for a series of years, Mr. Turner gave up exhibiting for a time, but now they receive the same attention at Slough as of old. Carnations and Picotees have never ceased to be favourites, and at the present time Roses have taken the high place Dahlias once occupied—and, indeed, still occupy — on the occasion of any great contest. Time was when it was not uncommon to have half-a-dozen collections of Dahlias, a hundred varieties in each. The old Pink, once so popular, and endeared to Mr. Turner as the flower with which he won his first floricultural victory, is rising into favour again, and the collection at Slough is one of the most complete and perfect to be met with. One great achievement has been the marked success with pot Roses. The leading characteristic of the Slough mode of culture was to show naturally grown bushes instead of the old fan-shape, at one time so prevalent. These took the place of the once splendid Azaleas that used to come from Slough to the London exhibitions; but the Azalea is by no means neglected, as in the spring time it is not unusual to see very fine collections of remarkably well-grown and flowered specimens sent from the Royal Nursery, and new varieties are constantly appearing in season from there. The Slough Pelargoniums are known far and wide, and are generally placed first on the exhibition stage. There was a time when the Pansy was extensively and successfully grown at Slough, but they will not now succeed in the warm and dry South as formerly. The battle against adverse influences was manfully kept up for a time, and only brought to a close when surrender was inevitable.

As an exhibitor, who shall attempt to estimate the prowess of Charles Turner? What a long line of successes are written in the chronicles of the Horticultural Press! A man who can hold his own against all comers for the space of half a century must have that within him which cannot be overcome until human power fails in old age. Emerson's remark may be appropriately quoted here: "This man accomplished by some magnetism. His victories are demonstrations of superiority. He conquers because his arrival alters the state of affairs." In a piquant passage in his *Book About Roses* the Rev. Canon Hole has sketched Charles Turner as an exhibitor:—"Mr. Turner does not show his cards, but when he comes to play them on the green cloth or baize of the exhibition table no man deals more fairly, knows his game more thoroughly, holds more trumps, or scores the honours more frequently." The number of prizes gained in 1883 amounts already to ninety, fifty of these being 1st prizes.

A list of the novelties in plants, flowers, fruits, and vegetables sent out from the Royal Nursery during the proprietorship of Mr. Turner, would fill a small volume. Their name is legion. New Auriculas, Azaleas, Carnations, Cinerarias, Dahlias of all kinds, Fuchsias, Gloxinias, Pelargoniums of every section, Picotees, Pinks, Roses, Verbenas, &c., have been from time to time sent forth until they can be counted by the hundred. A large number of these novelties are raised at Slough; a great proportion by others. The opportunity to secure and send out a good thing is never lost. Two of the best and most useful Strawberries ever raised—President and Sir Joseph Paxton

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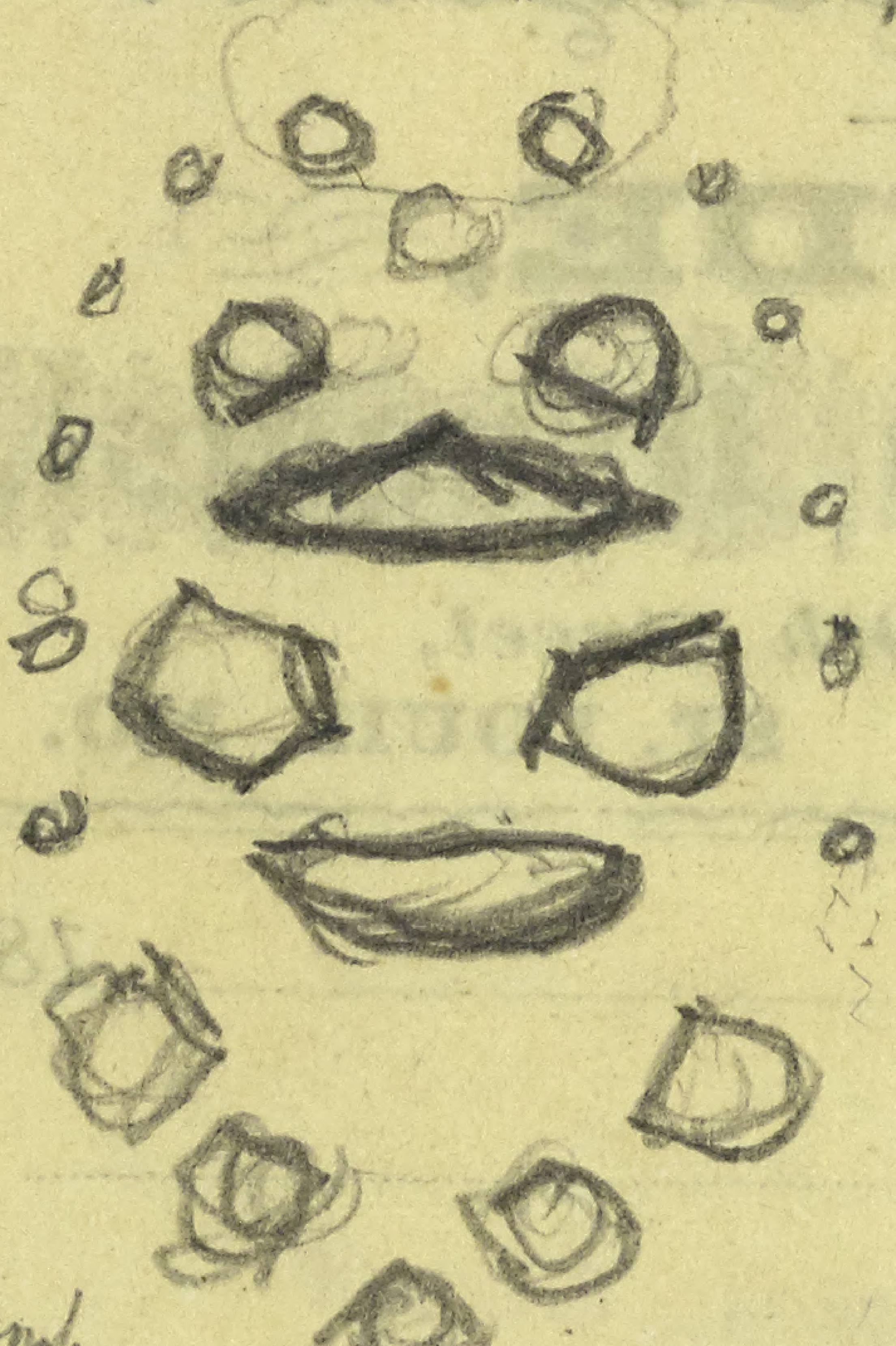
Missouri Botanical Garden

E Palmer S. Utah May 1877

these two often wanting

style



50–60 sepals of ovary
40–50 inner sepals

17 stigmas | flattened curved
not hooked
~~stout~~

(or 5)
3 upper
5 lower

2d class.

all annulate

10 lateral bristly

1522

17 branches
nearly twice as long
as style

some two often additional

22 } 24
2 sp

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No. *187*

For ....

Rp.

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"Echinocactus (Jan 16th 1851) Wislizeni and the mammillaria like plant seen at San Felipe appeared today. The former bearing a crown of numerous oblong yellow fruit about 2 1/2 inches long."

1523

I recollect that it is less cylindrical than the species of San Felipe; it appeared to be Emory's No 4, and I believe that only one spine in each fascicle was slightly hamate.

Dr LeConte in letter Dec 27 1852

(probably a new species, E. Lecontei — do all the "Ech. Wislizeni" from the Gila belong here?)

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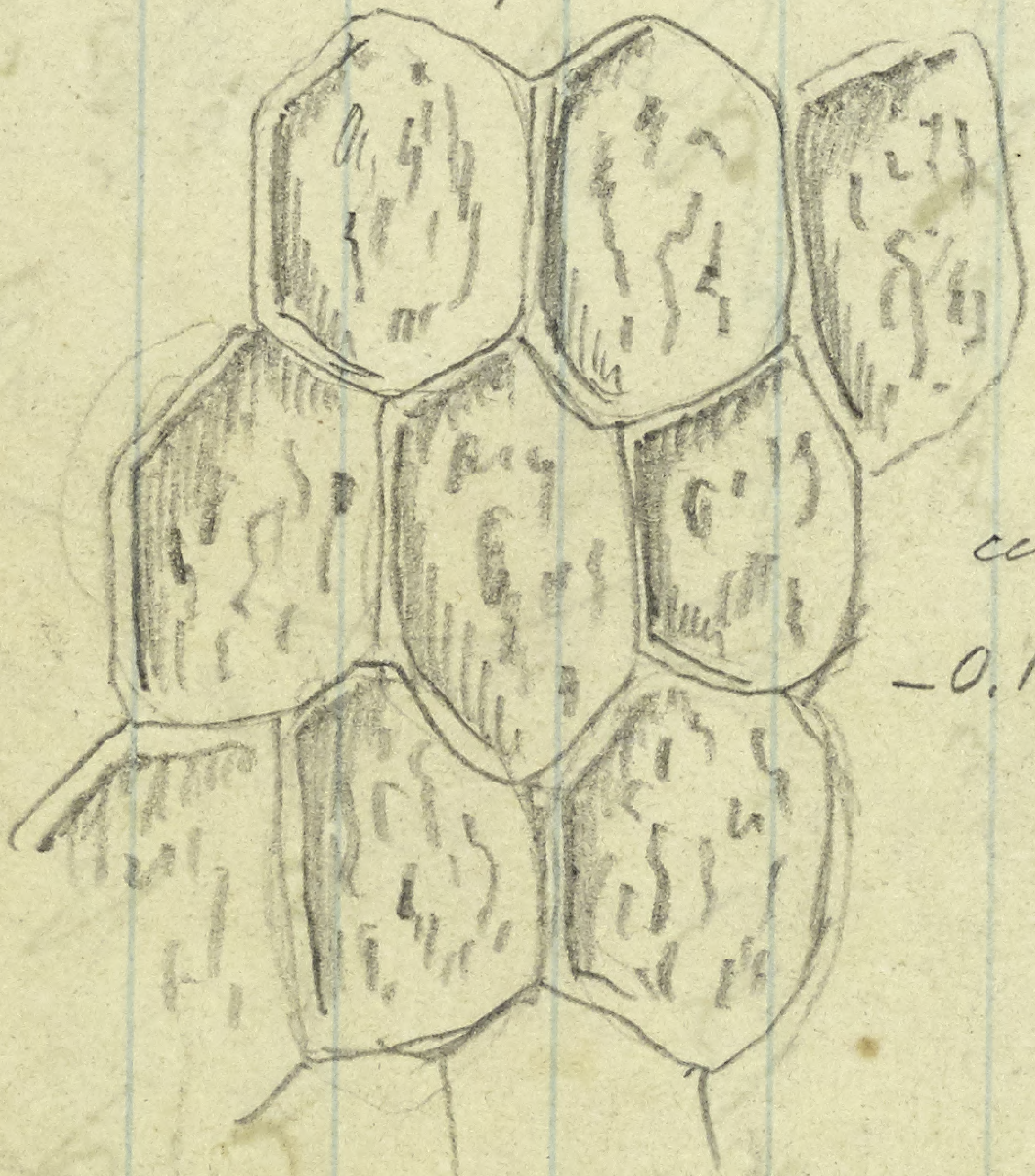
surface of seed
of Siler's Utah Echin
Lecontei



x 150

cells 0.10mm
-0.13 long

1524

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23 162

1790 59.7
1800 60.0

of Merri

under yo

Brewer.

to Cleveland; 1874

thus far [illegible]—

Yrs. Brewer

Echinocactus Wislizeni

California, White water desert Nov 1880

young plants 10-12 in diam globose, with
red spines, on circular areolas, without any
slender lateral bristles.

largest plants 6' 9" high, 3' 5" circumference, clubshaped.

27 ribs.,

another 27 ribs, 68" high 18" diam, without spines columnar.

fruit somewhat fleshy opening at base
when it falls off.

another also 27 ribs cylindrical, not clubshaped.

another 30 ribs, 5 feet high, 18" diam.

A specimen 8" diam. 2' high 25 ribs – central spine
almost straight.

1525

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the Connecticut Mutual's total assets means about $500,000—Five Hundred Thousand Dollars extra surplus earned and returned annually to its members to help them pay their premiums.

With these facts in view, and as the Connecticut Mutual is second to no Company in the world in any desirable respect, and in preference to Companies which do not invest their assets in this city, and do nothing whatever in support of her institutions and business interests, as a citizen of St. Louis, with your interests identified with her interests, do you not think that the Connecticut Mutual is fairly entitled to your patronage, your good will, and a recommendation to your friends?

Should you need Life Insurance, or reliable information in regard to it, I would be pleased to have you call at the office or address me by letter.

Respectfully,

A. B. DENTON,

Gen'l Agt. Conn. Mutual Life Ins. Co.

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Echinocact Wislizeni in San Gorgonio Desert, Whitewater Station, 29 ribs — 6-7 feet high, 20 inches diam

1526

Nov 10 1880

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necessary record in Sargent's Catalogue until I have the names of the accompanying plants settled.

Will you be kind enough to take a

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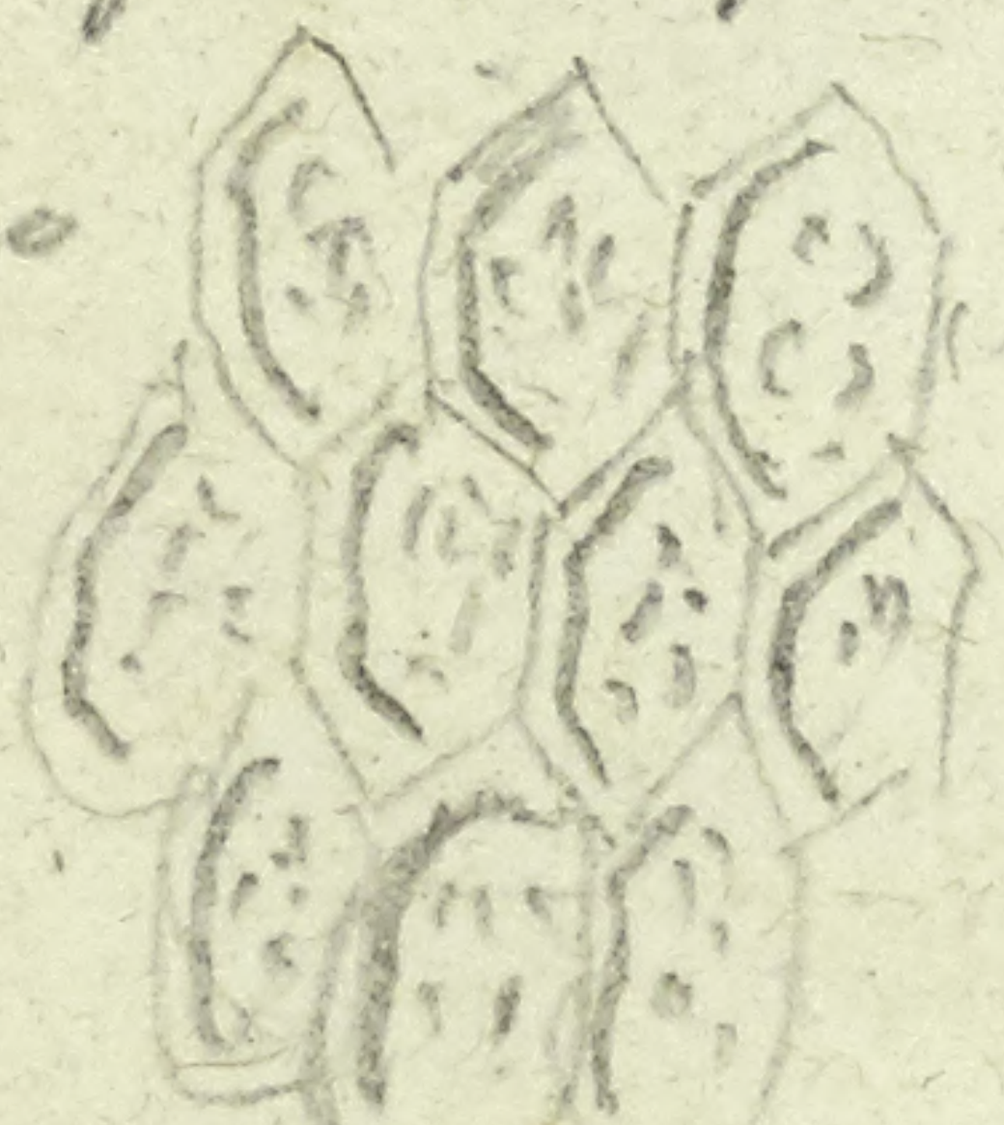
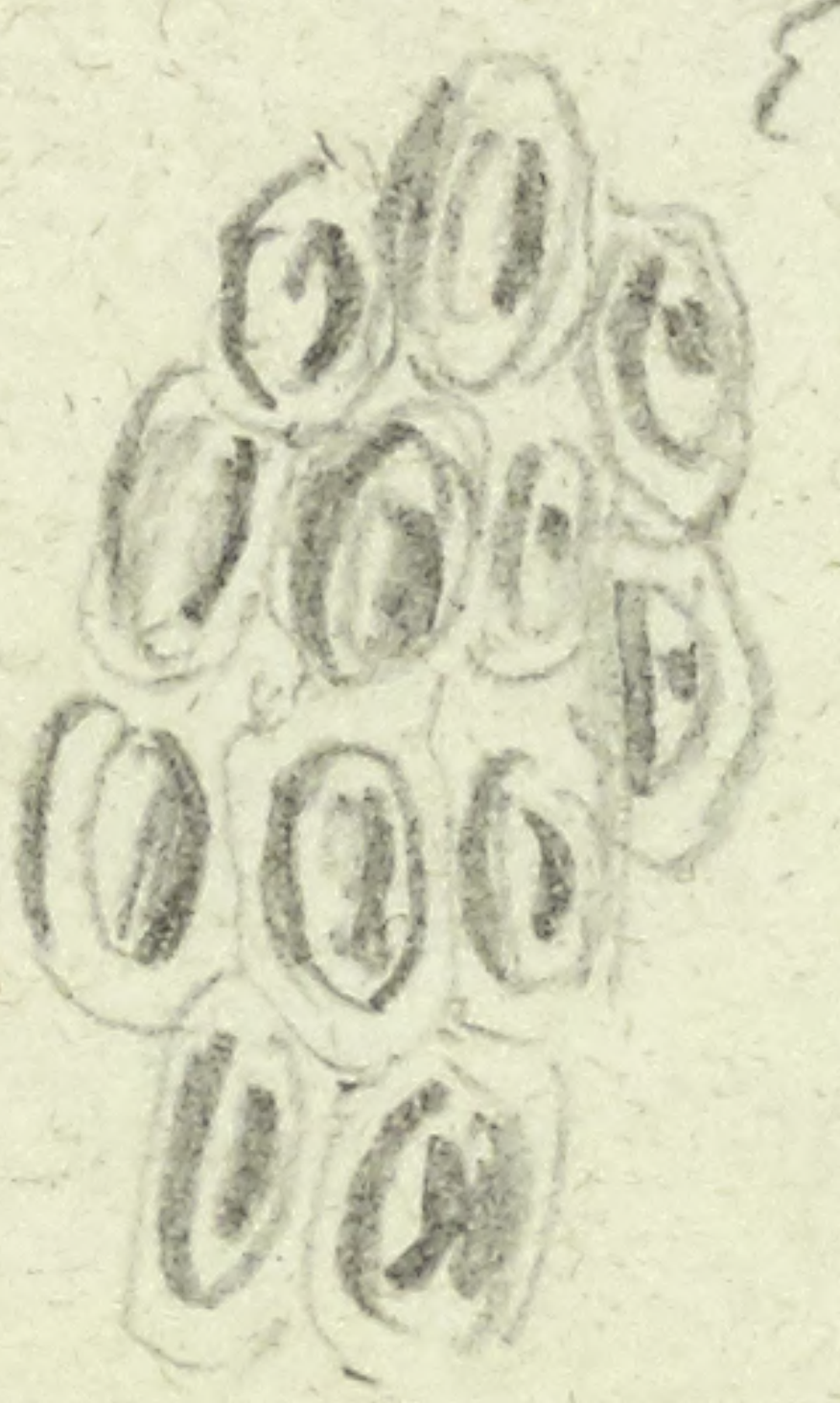
Echinocactus Wislizeni Feb 23 '76

surface of seed ×60


wislizeni leg
El Paso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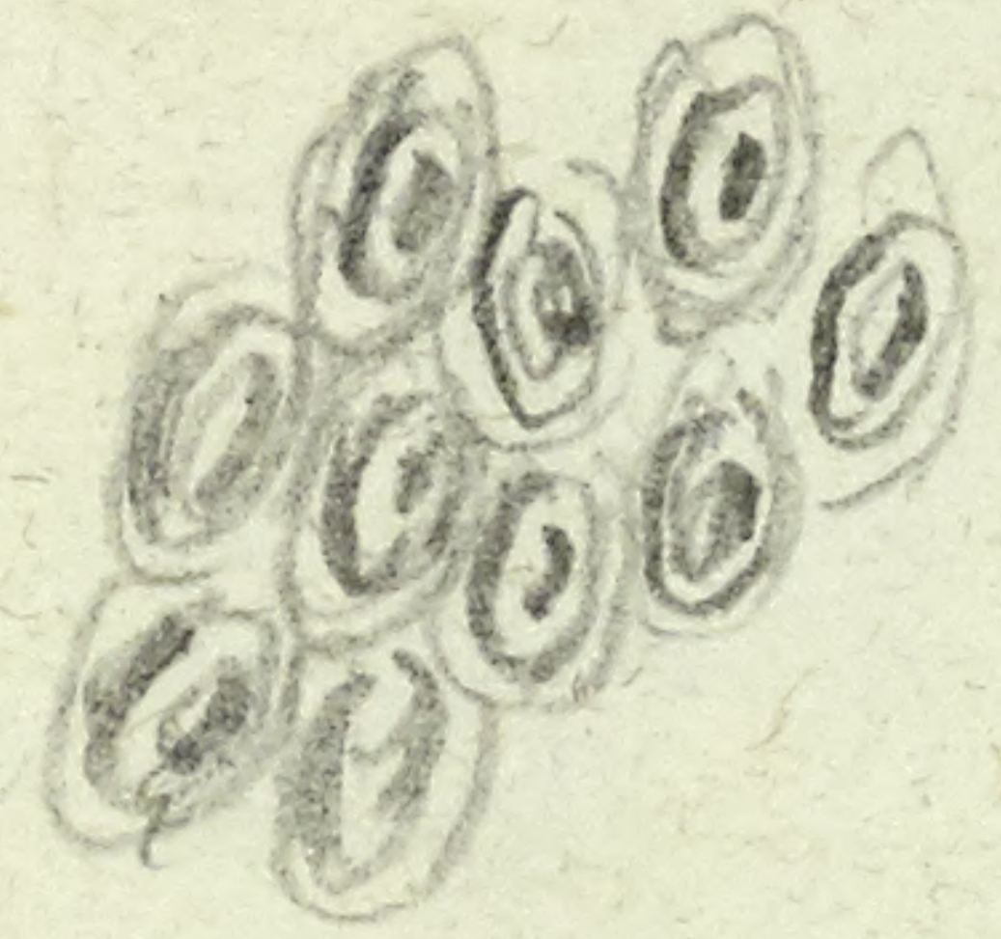
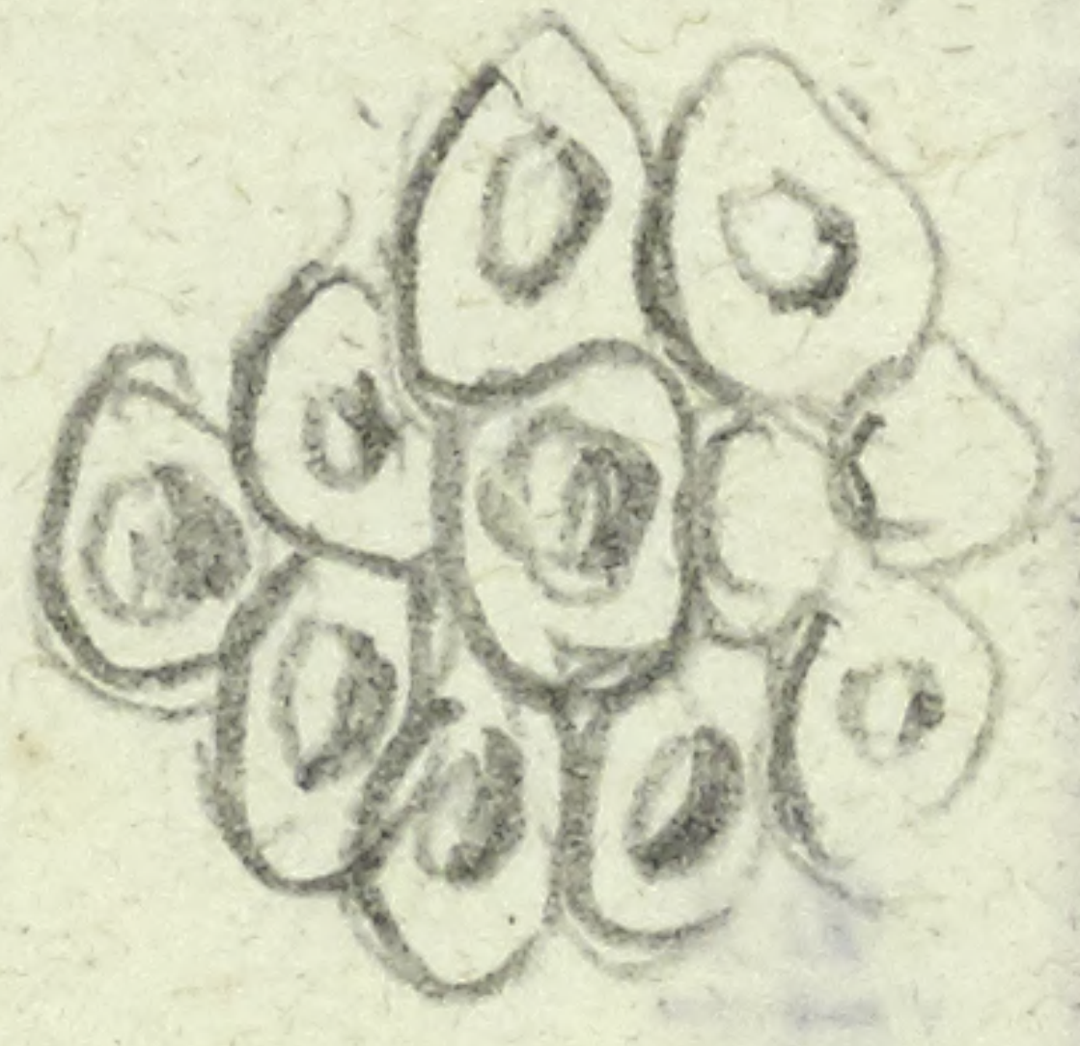
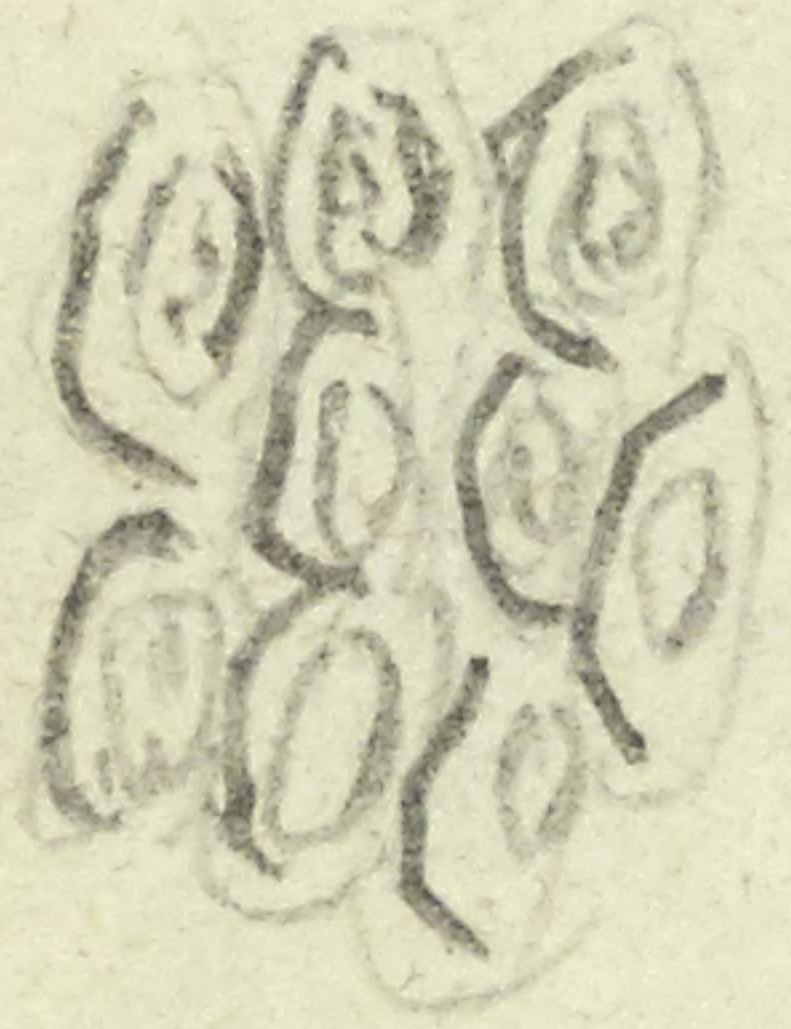
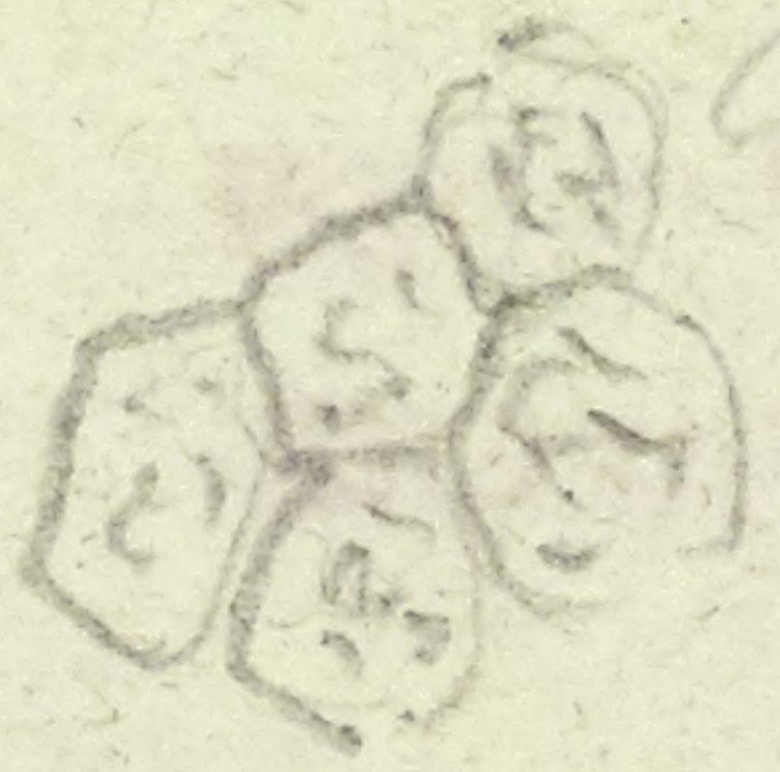
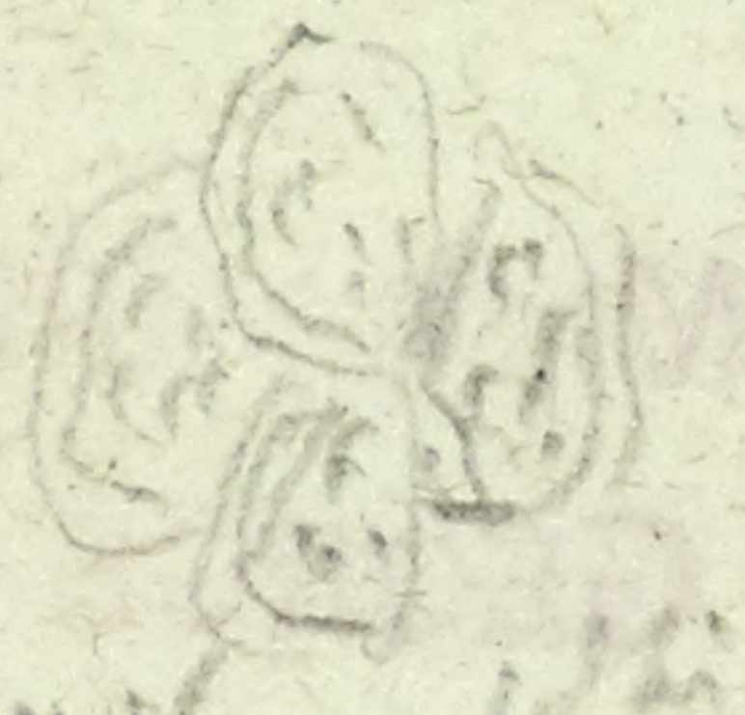
Kribben

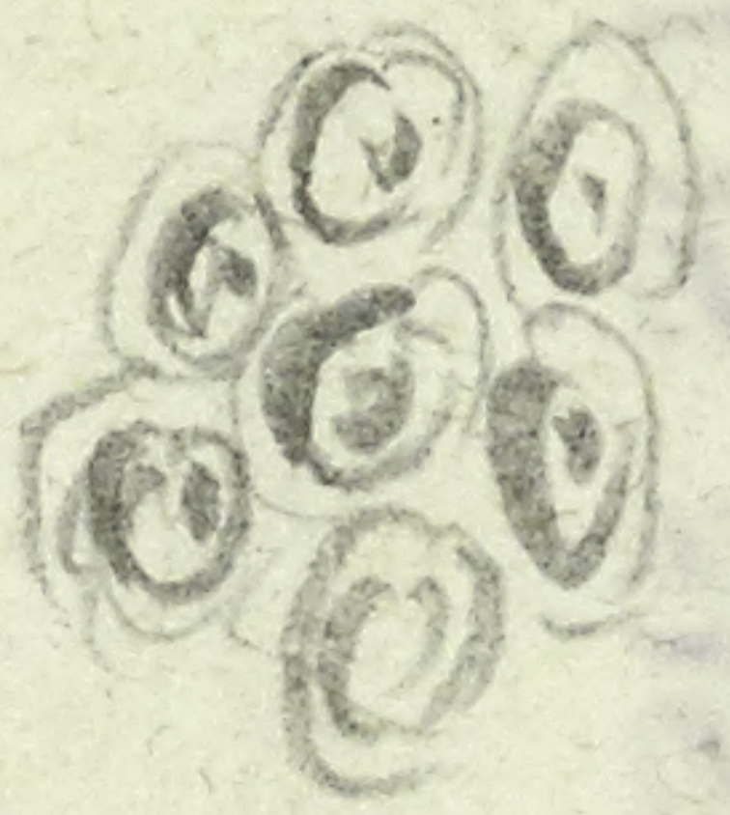

El Paso
Wright


Coues, Fort Whipple
1865

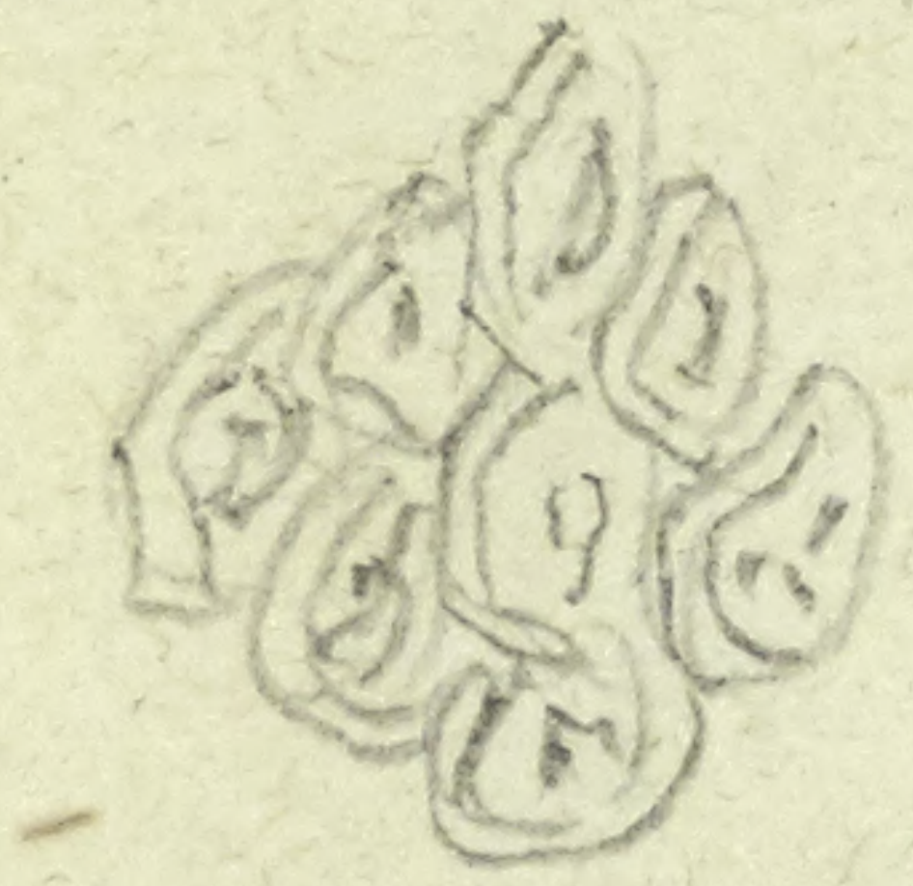

El Paso
Bigelow

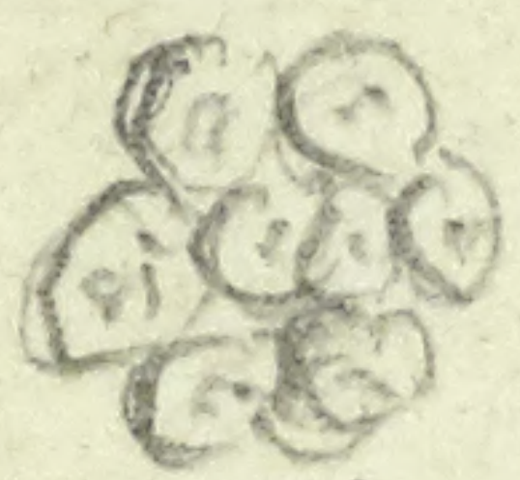

Chihuahua
Potts gard


gila, Whipple


Sonora
Palmer 1869

Palmer, Arizona 1867




young incomplete seed

1527

Alex. Leitch,
APOTHECARY & CHEMIST,
Cor. 4th & Olive Sts., St. Louis.

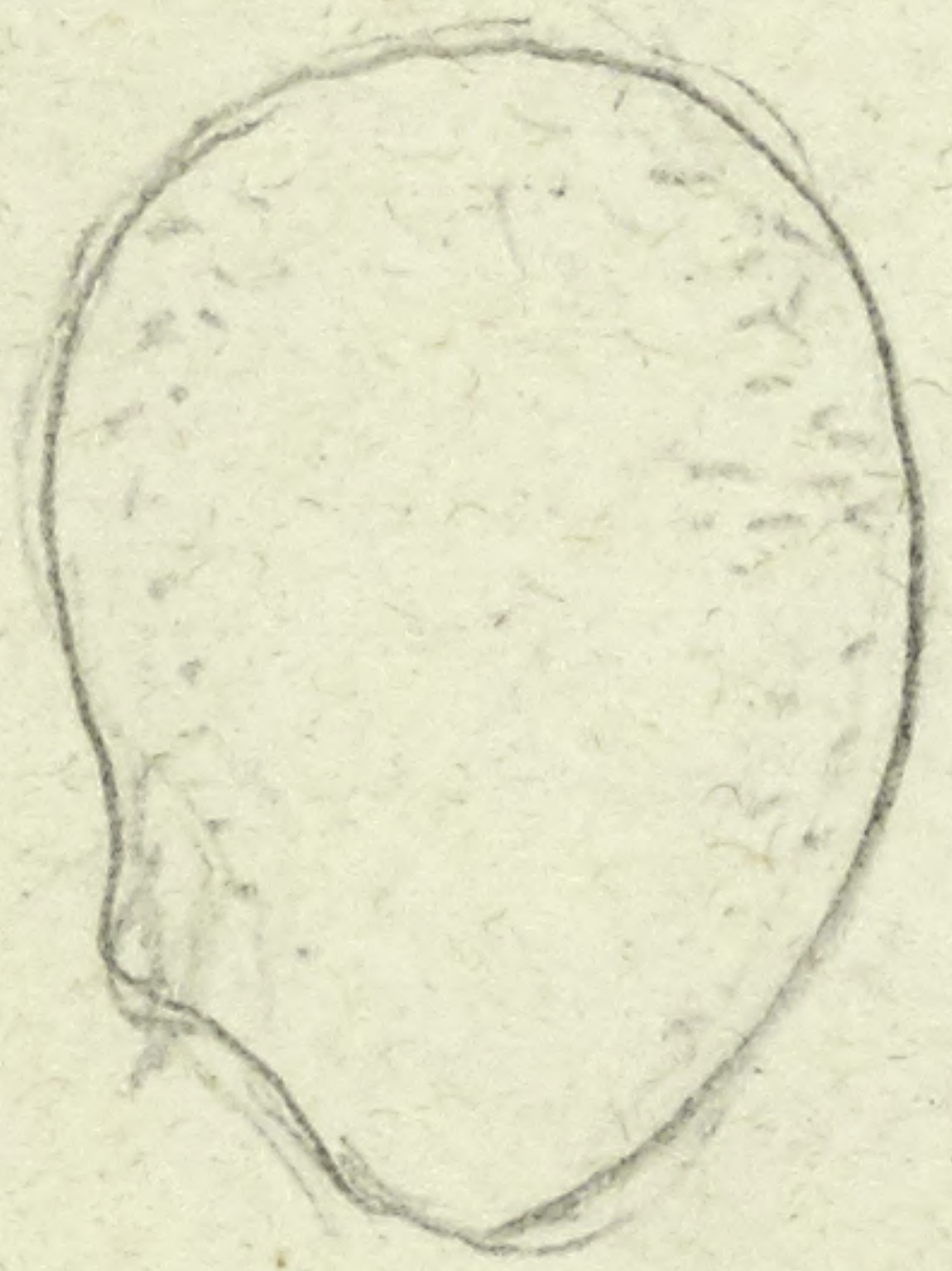
Echinocactus

Febr 23 1876

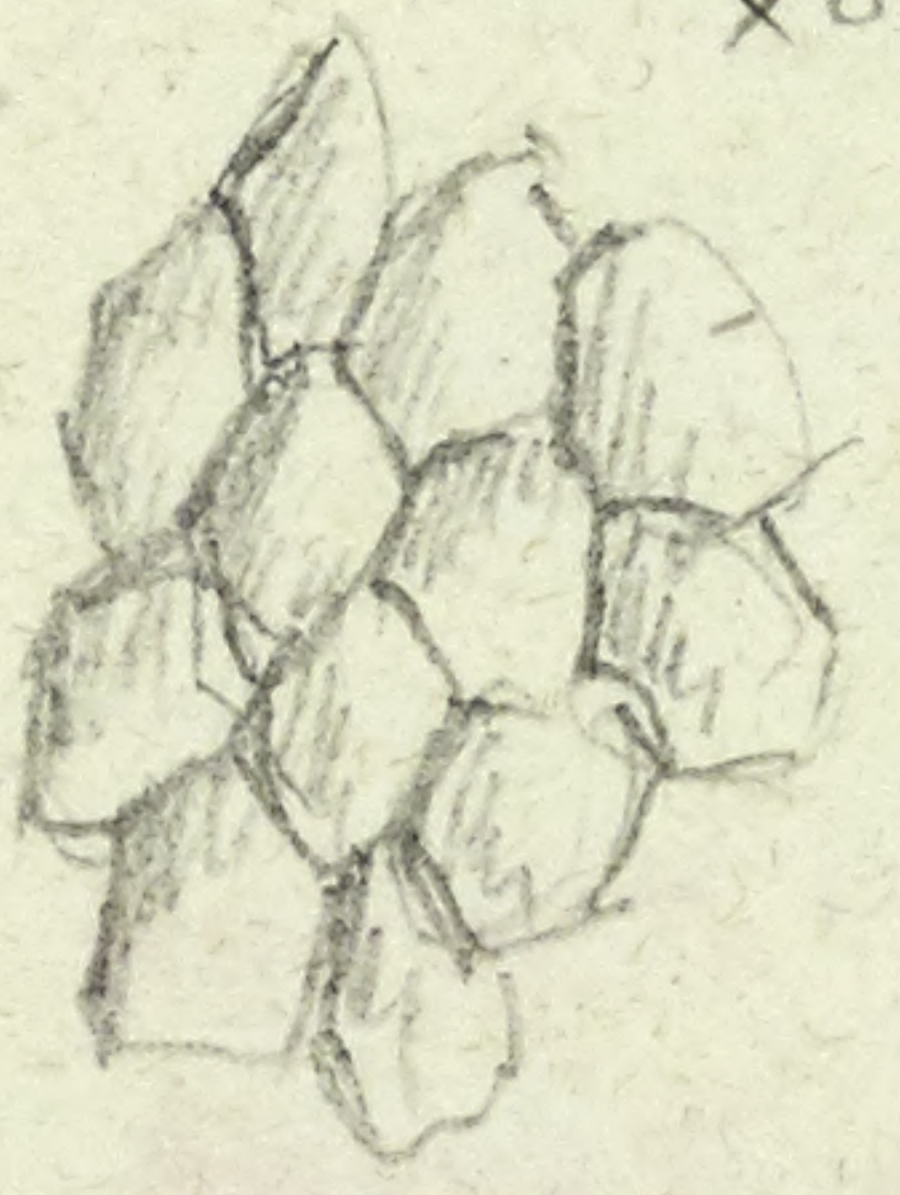
near Wislizeni

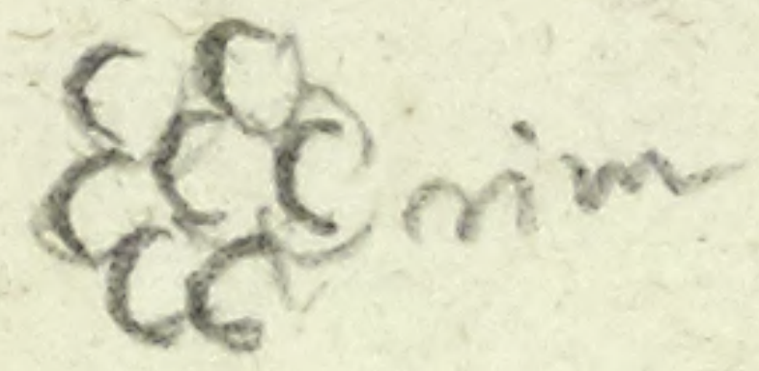
Dr Palmer 1870
Colorado Riv pitted
North Arizona

× 8



× 60





1528

0 1 2 3 4 5 6 7 8 9 10
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MISSOURI
BOTANICAL
GARDEN

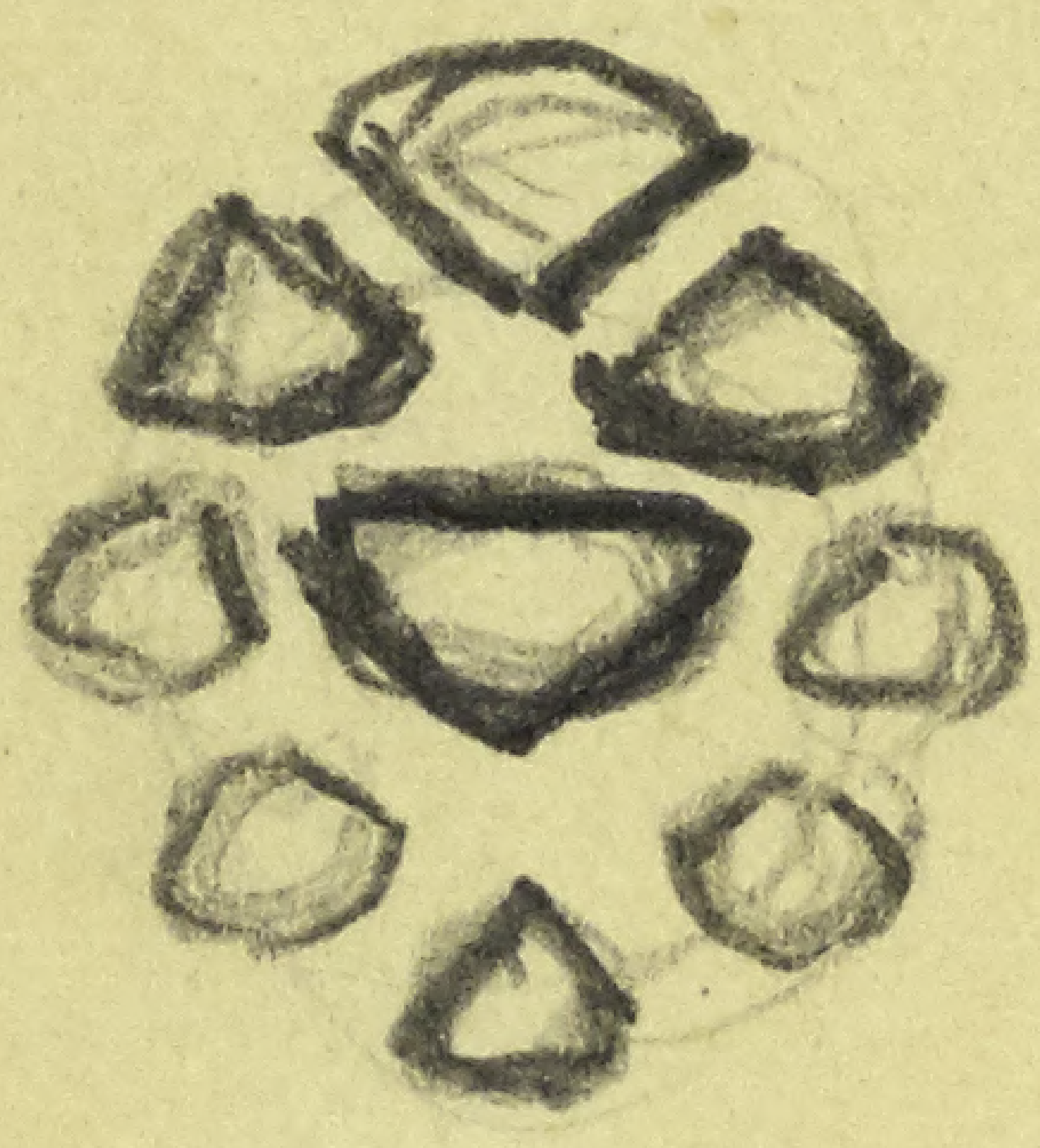
Alex. Leitch,
APOTHECARY & CHEMIST,
Cor. 4th & Olive Sts., St. Louis.

June 5 77

Echin: Whipplei

young plants 1 - 3
inches diameter

Dr Palmer
Utah



always even in youngest
9 spines, 1 central & 3 upper
largest will become afterwards
the 3 central spines.

1529

Smaller one with 8 ribs
larger with 8 below, 13 above

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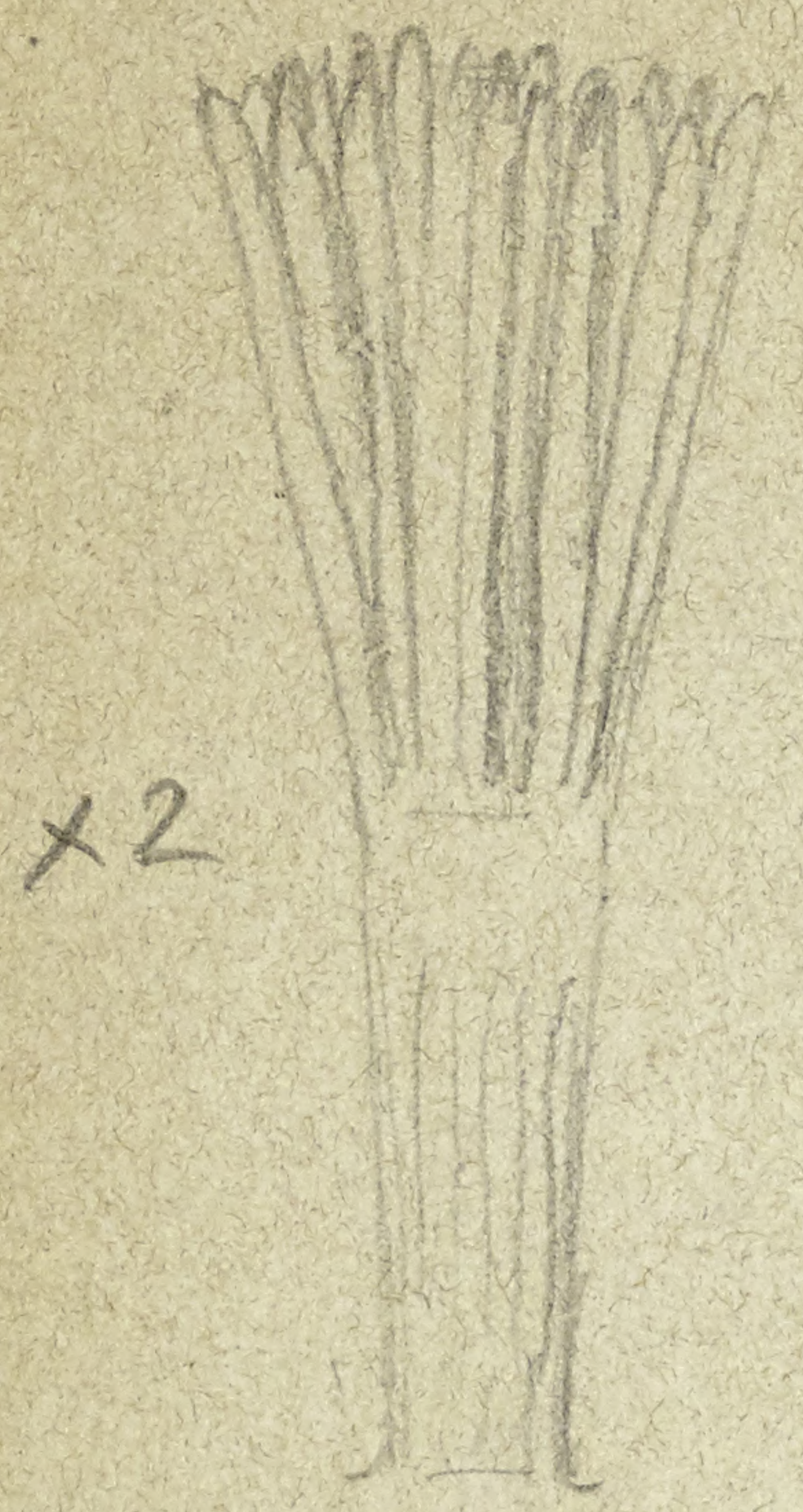
MISSOURI BOTANICAL GARDEN

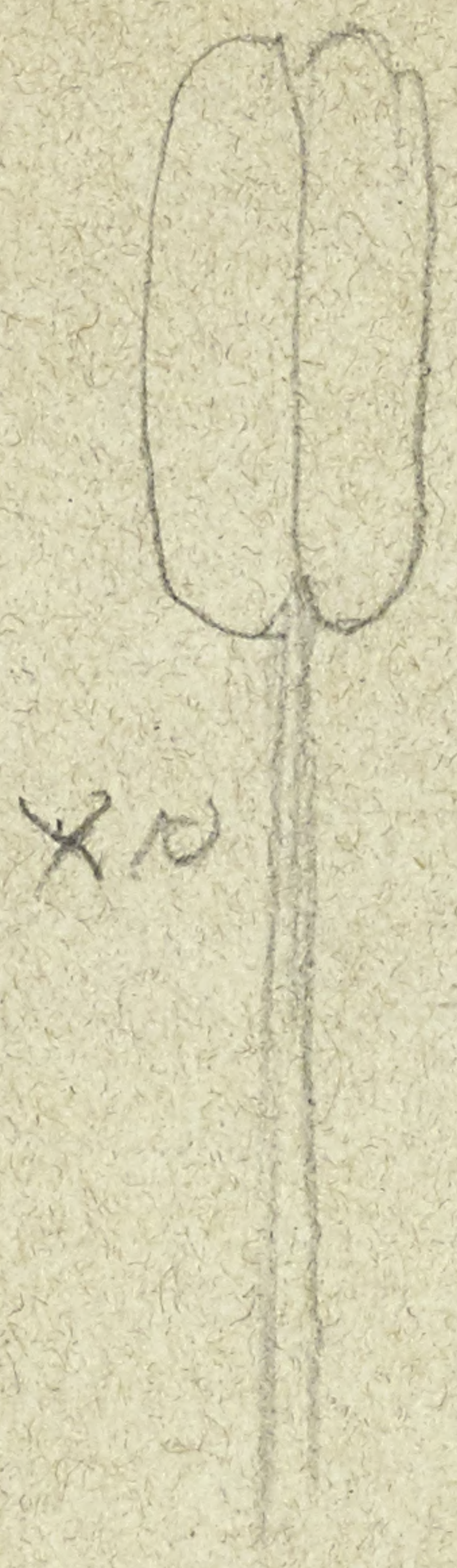
Echinocactus Whipplei
curvispinus
S. Utah, Dr Palmer

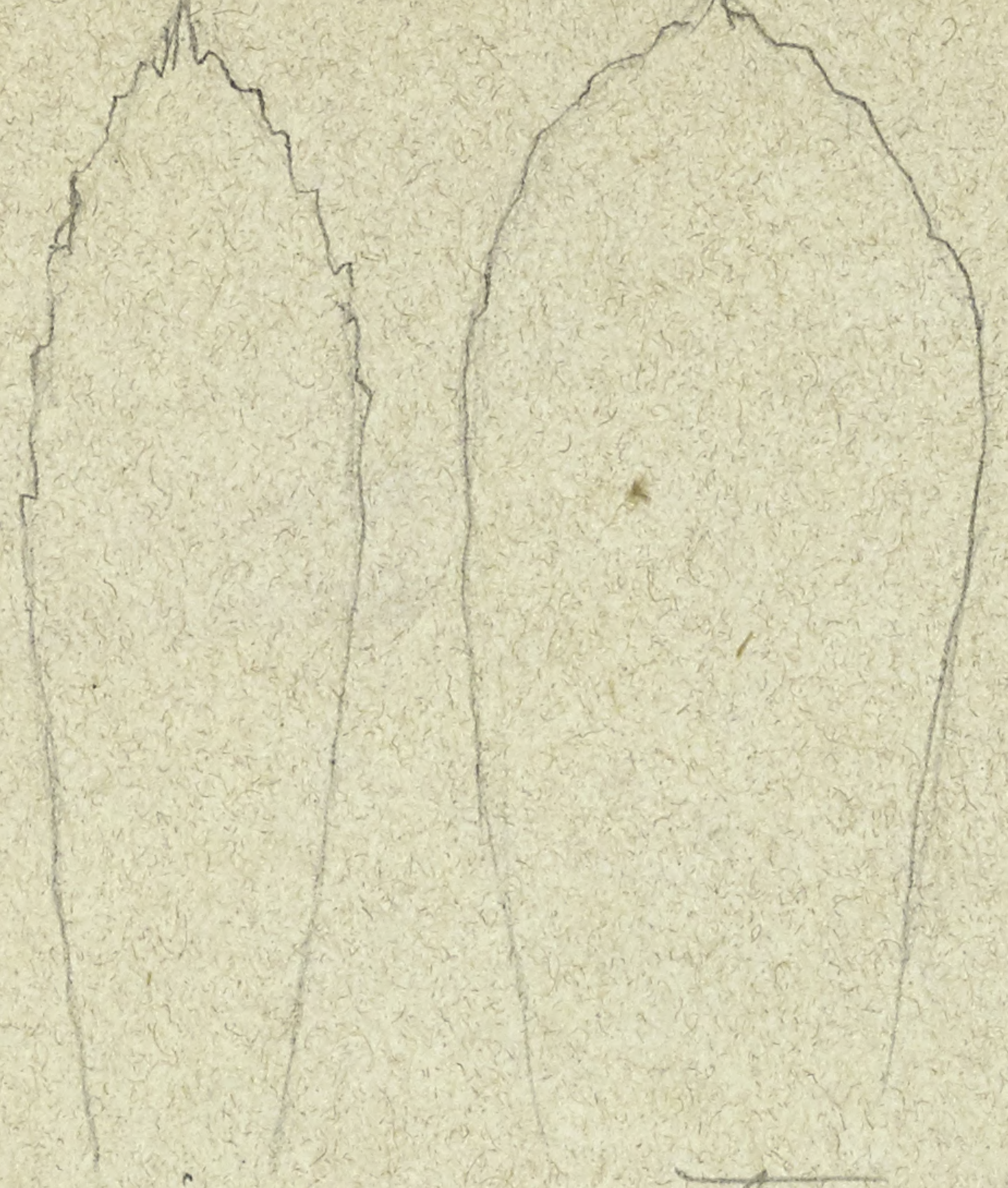
July 5 1877

1530



17 stigmata
10-12 mm long
style 10-12 mm
grooved




inner outer
petals x2

0 1 2 3 4 5 6 7 8 9 10
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MISSOURI
BOTANICAL
GARDEN

CHEMIST.

A

ALEX. LEITCH,

APOTHECARY & CHEMIST,

Cor. 4th and Olive Sts., St. Louis.

ALL THE NEW REMEDIES CONSTANTLY ON HAND

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Newberry's Cactaceae 1858 Jan 1859

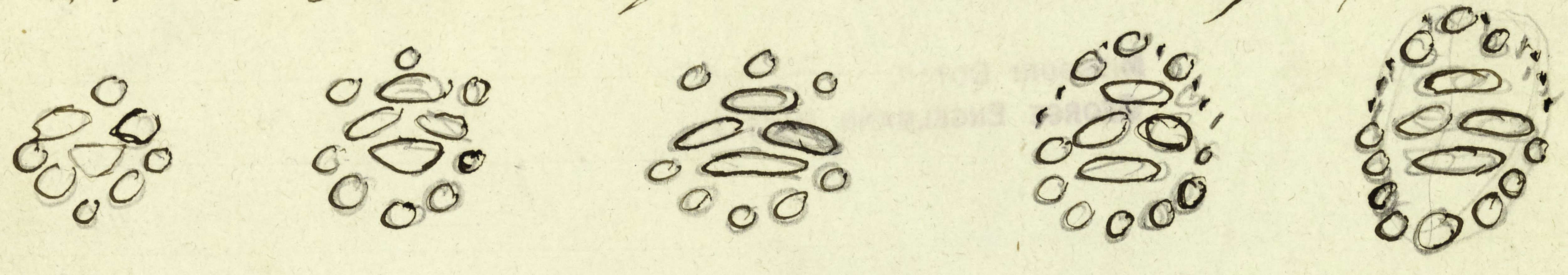
1531

Echinocactus LeContei

(The last specimen died 1861; it had never grown any)

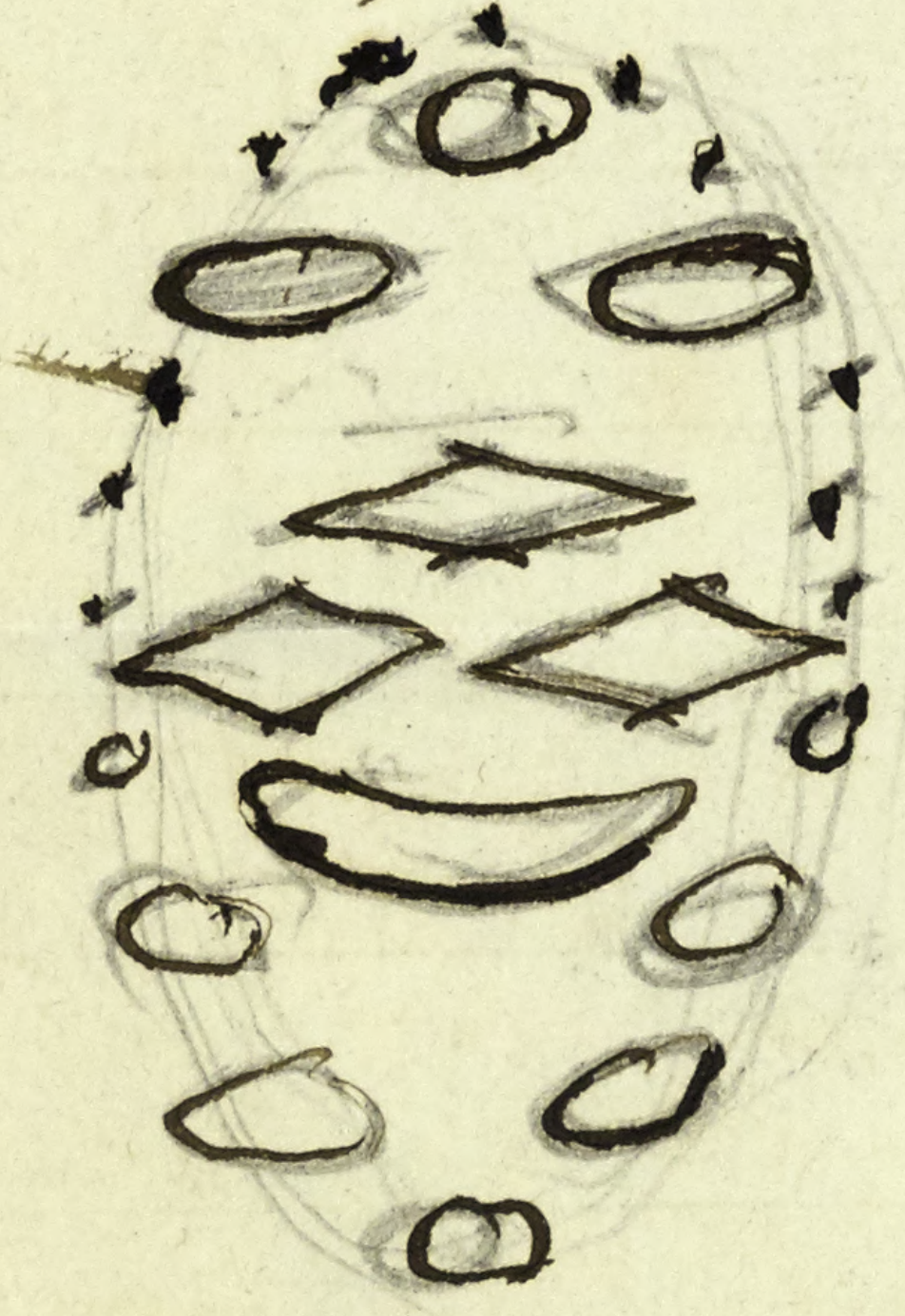
3 globose specimens, 3, 4, & 9 inch diameter; smaller ones below 8, above 13 ribs, larger one with 19 ribs; lowest spine $\frac{3}{4}$–1 inch long, 8 radial and 1 central one, all annulated; lowest ~~radial~~ spine slender & hooked; central spine recurved, not hooked; sometimes 3 lower spines hooked or curved.

Soon spines larger; 3 upper radial appear; the former 3 upper radial becoming 2 upper central spines, and flattened; very soon or at the same time the exterior & superior setaceous spines make their appearance in these small specimens already; the 5 lower



radial increase to 7 and the areola at first orbicular or oval becomes elongated

In the large specimen we find 5 or 7 lower radial spines, upper and lower central very flat; lowest radial recurved hooked; upper radial flattened; setaceous spines intermixed with the other, but always above the lower central spine.



this large specimen shows remains of flowers but no fruit

All the specimens of this plant here examined have the lower part tuberculated, i.e. the young plant is of a Mammillaria shape, tubercles not yet united into ribs.

On unripe fruit about 30 scales, imbricate, in $\frac{4}{11}$ or $\frac{5}{13}$ arrangement.

0 1 2 3 4 5 6 7 8 9 10
cm
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